

Morphohistology of Male Gonad in the Caspian Sea Kutum (*Rutilus frisii kutum*)

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Abstract

In this study, for the investigation of testicular structure and pattern of reproductive cycle in the male Caspian kutum, the sampling was achieved monthly from Jefrood coasts (Anzali, Guilan province, 37° 27' N; 49° 33' E) from October 2011 to late April 2012. After macroscopic observations and photographing position of sexual organ, the male gonad sections were removed and fixed in Bouin's solution. After applying of various steps of histological method, 5 micron sections were prepared, then stained with hematoxylin– eosin and finally were examined by optical microscope equipped with a camera. The results showed that the developmental stages of kutum testis were divided into four stages. In Stage I (early maturing), the testes were thin and contained the spermatogonia and the primary spermatocyt. In stage II (late maturing), the primary and secondary spermatocytes were the most visible cells. In matured stage (stage III), all developmental stages of spermatogenesis were observed. In stage IV (ripe), the largest volume of the abdominal cavity occupied with lobules and they were full of spermatid and DNA carrier spermatozoa. In general, the pattern of testicular growth was lobular system in the Caspian kutum and the process of sperm formation was done in the defined period from October to April.

Keywords: *Rutilus frisii kutum*, Caspian Sea, Testis, Sperm, Histology.
